

Drawings

The Examiner states, in numbered section 3 of the Office Action, that the application was filed with informal drawings, which are acceptable for examination purposes only, and that formal drawings will be required when the application is allowed.

It is respectfully submitted that formal drawings will be submitted upon allowance of the application.

The Examiner also states, in numbered section 4 of the Office Action that Figure 1 appears to be prior art and should be labeled as such.

The Examiner's objection to Figure 1 is respectfully traversed. It is respectfully submitted that Figure 1 is a schematic view of a constitution of a preferred embodiment of the invention by way of example as described at Page 17-18, lines 15-9 of the specification.

Rejections To The Specification

The Examiner states that the title of the invention is not descriptive, and requires a new title clearly indicative of the invention to which the claims are directed.

A new title, as suggested by the Examiner, has replaced the previous title of the invention. The new title is descriptive and clearly indicative of the invention. Therefore, it is respectfully submitted that the Examiner's objection has been overcome.

Claim Rejections Under 35 U.S.C. §103(a)

The Examiner rejects claims 1-9 under 35 U.S.C. §103(a) as being unpatentable over Disclosed Anonymously (RD38502) (Henceforth denoted "DA") and further in view of Schneier (Applied Cryptology). For the foregoing reasons, the Examiner's rejections are respectfully traversed.

Claim 1

As for claim 1, the Examiner states that the applicant recites a remote controlled receiving apparatus transmitting through a network which transmits encrypted certification information to a processor (apparatus has a extracting means, and decrypting and storing control commands) to control an electronic device. The Examiner also notes that computers and processors by there (sic) nature have a means of extracting and a means for storing information. The Examiner states that DA teaches a device that uses an interface with the internet, a web page with an electronic program guide and VPS or PDC codes for identifying programs, and hypertext labels with icons such as "record this" to allow a multimedia station to reproduce or record radio or television programs remotely by means of a simple point-and-click operation. The Examiner also states that the use of hypertext commands does not restrict invention, as all electrical devices need a start time and a run time. Further, the Examiner states that DA teaches all aspects of the appliance invention with the exception of encryption of transmitted signals and user authentication.

Schneier, the Examiner states, teaches various means for encrypting a signal including classical public and symmetric key encryption/decryption and further teaches the use of authentication. The Examiner states that the motivation to substitute secure communication encompassed by the teaching of Schneier for the clear communication taught by DA amounts to the prevention of unauthorized changes in the multimedia programming (or other electronic devices) either unintentional or intentional, and that such changes could be minor such as missing a TV program because someone changed the scheduling on the VCR or very serious, if the device remotely controlled is a power grid.

Contrary to the Examiner's contention, DA does not teach all aspects of the applicant's invention with the exception of encryption of transmitted signals and user authentication. Most importantly,

there is no means for receiving an electronic mail transmitted through a network as recited in claim 1. This feature is paramount because claim 1 is directed to extracting, and decrypting information from the aforementioned electronic mails. Claim 1 recites extracting means for extracting encrypted certification information inserted in received electronic means as well as an extracting means for extracting a control command inserted in said electronic mail received by said receiving means for controlling a predetermined electric device. This means of extracting encrypted certification information is not an inherent feature of computers and processors as suggested by the Examiner. Claim 1 also recites a decrypting, certification, and storing means for the received encrypted certification information.

DA discloses known systems for broadcasting electronic program guide (EPG) information where for each program mentioned in the program guide, a teletext page also includes a program label uniquely identifying this program. Then a desired program can be selected by means of a point-and-click device. (DA, page 276, lines 3-6) The program label is then stored in memory and transmitted when the program is broadcast. (DA, page 276, lines 6-8) The transmitter labels are continuously compared with program labels stored in the memory when there is a match a desired program is broadcast, and automatically recorded by a videorecorder. (DA, page 276, lines 8-10). DA teaches that now these program guides can also be found on the internet, so as to allow multimedia station to automatically reproduce or record desired television programs or radio programs by way of a simple point-and-click operation. (DA, page 276, lines 17-20.)

Moreover, as the Examiner conceded, DA does not teach encryption of transmitted signals and user authentication. Consequently, because DA lacks the receiving means for receiving an electronic mail transmitted through a network of the current invention as well as the means and method of encryption of

transmitted signals as admitted by the Examiner, even if Schneier teaches various means of encrypting a signal, there would be no motivation or suggestion to one skilled in the art to combine the teachings of Schneier with those of DA to arrive at the current invention. It is too broad of a leap to take the proposal of DA to accommodate the program labels in Internet pages so as to allow multimedia stations to automatically reproduce or record desired television programs or radio programs by way of a simple point-and-click operation, and invent the receiving apparatus as recited in claim 1. To do so would require one or more separate inventive steps. Therefore, no motivation or suggestion stems from the teaching, suggestion, or implication in the prior art as a whole or knowledge generally available to one having ordinary skill in the art. Moreover, while the Examiner's rejection attempts to find rationales for modifying the applied prior art, these rationales are all based on achieving applicant's invention rather than on suggestion coming from the prior art. The mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggested the desirability of the modification. Therefore, it is respectfully submitted that claim 1 is patentable over DA in view of Schneier.

Claim 2

As for claim 2, the Examiner states that DA teaches an apparatus for controlling multimedia (or other electrical devices) by remote control. The Examiner also notes that in order to control a device remotely, control commands must be sent between the user and the device being controlled and thus, DA must issue control commands through hypertext.

Claim 2 of the applicant's invention recites an executing means for executing the control command stored in the storing means of claim 1. In claim 1, a control command is inserted in an

electronic mail received by the receiving means for controlling a predetermined electric device.

DA does not, contrary to the examiner's contention, teach an apparatus for controlling multimedia by remote control. Because program guides can now also be found on the Internet, what DA proposes is accommodating the program labels in Internet pages so as to allow multimedia stations to automatically reproduce or record desired television programs or radio program by way of a simple point-and-click operation.

Therefore, there is no motivation or suggestion for one skilled in the art make the broad leap from program guides on multimedia stations, as proposed by DA, to extracting and executing control commands inserted in an electronic mail for controlling a predetermined electric device as recited in claims 1 and 2 of the applicant's invention. Furthermore, because there is no motivation or suggestion to arrive at claim 1 from which claim 2 depends, it is respectfully submitted that claim 2 is also patentable over DA.

Claim 3

As for claim 3, the Examiner alleges that Schneier teaches of a mention of authenticating the ID of a user by sending password information to the receiver and the receiver then compares this with previously stored information. The Examiner then rejects claim 3 as anticipated under §103.

Claim 3 recites that the certification information received in claim 1 is predetermined text information in an encrypted state. In claim 1 the certification information is inserted in an electronic mail received by the receiving means. Schneier teaches authentication using one-way functions. Instead of the host needing to know passwords, the host just differentiates valid passwords from invalid passwords by performing a one-way function on a sent password and comparing the result of the one-way function to the value it

previously stored. Schneier, Page 52, lines 11-22. Claim 3 merely further describes the certification information inserted in the electronic mail as recited in claim 1 from which it depends. Because there is no motivation or suggestion to arrive at the features recited in claim 1, from which claim 3 depends, as discussed above, claim 3, likewise, would not be obvious over DA in view of Schneier. Therefore, it is respectfully submitted that claim 3 is patentable over Schneier.

Claim 4

As for claim 4, the Examiner states that the applicant recites an apparatus with the limitation of claim 1 and further limits the claim by use of public key and the authentication carried out by use of the owner's secret key. The Examiner states that Schneier discusses public key authentication, in particular its use with the user's private key

Again, the recitation of claim 4 further describes the certification information sent inserted in the electronic mail received by the receiving means in claim 1 from which it depends. As explained above there is no motivation or suggestion to arrive at the features recited in claim 1. Therefore, it is respectfully submitted that claim 4, which depends directly from claim 1 is patentable over Schneier as well.

Claim 5

As for claim 5, the Examiner states that it is rejected under §103 because it recites a method implementing the apparatus of claim 1 and therefore contains the same limitations. Because the apparatus of claim 1 is patentable for the reasons stated above, it is respectfully submitted that the method of implementation of claim 5 is patentable over Schneier and DA as well.

Claim 6

As for claim 6, the Examiner states that DA teaches a communication link consisting of a transmitter and receiver. The Examiner admits that DA is silent on encryption, however, the Examiner states, that there are means for the user to encrypt messages, files or signals sent over the internet if they choose to do so. The Examiner states that Schneier does teach encryption and certification, and generally that certification requires some predetermined information such as a random number, etc. The Examiner thus concludes that the motivation to substitute secure communications encompassed by the teaching of Schneier for the clear communication taught by DA amounts to the prevention of unauthorized changes in the multimedia programming (or other electronic devices) either unintentional or intentional as recited in numbered section 9 of the Examiner's Office Action.

Again as explained supra, DA states that it is proposed to accommodate the program labels in Internet pages so as to allow multimedia stations to automatically reproduce or record desired television programs or radio programs by way of a simple point-and-click operation. While these programs labels are received by memory of the multimedia station from which they are transmitted, there is no means for inputting an electronic mail, as recited in claim 6 of the applicant's invention. Moreover, while encryption is generally taught by Schneier, there is no motivation of suggestion to arrive at apparatus as recited in claim 6. Claim 6 recites a transmitting means for transmitting through a network an electronic mail with certification added by a first adding means and a control command added by said second adding means. To progress from the teachings of DA to the transmitting apparatus recited in claim 6 would require one or more separate inventive steps, because DA does not teach controlling electronic device by use of electronic mail

or any kind of remote messaging apparatus. Consequently, there is no motivation or suggestion to combine the proposal of DA with the encryption methods taught by Schneier to arrive at the applicant's invention. Therefore, it respectfully submitted that claim 6 is patentable over DA in view of Schneier.

Claim 7

As for claim 7, the Examiner states that the applicant recites a method for implementing the apparatus of claim 6, and claim 7, therefore, contains the same limitations with respect to the art as claim 1 and therefore is rejected under §103.

It is respectfully submitted that the method for implementing the apparatus of claim 7 is patentable for the same reasons set forth with respect to claim 6.

Claim 8

As for claim 8, the Examiner states that DA's teachings consist of a transmitter and receiver and transmissions over a communication link (in particular the internet) between them. In addition, the Examiner states, DA teaches the transmission of control commands over such a network to be received and control electronic devices at the receiving end. The Examiner also explains that DA is silent on encryption and authentication though the user may choose to encrypt any information sent over the internet if he chooses. Lastly, the Examiner states the Schneier teaches the basic techniques of public key and symmetric key cryptology together with authentication protocols, and the motivation of combining the two arts would have been obvious to a person skilled in the art. The Examiner gives examples of the Internet being subject to tampering either unintentionally or intentionally and further that such a device would also be subject to eavesdropping (sic) and the potential loss of sensitive information if such information were transmitted over such a network in the clear, such as a pin number at an ATM machine.

Again, as explained supra there is no motivation to combine the references of DA and Schneier because DA merely proposes to accommodate the program labels of television program guides in Internet pages so as to allow multimedia stations to automatically reproduce or record desired television programs or radio programs by way of simple point-and-click operation. DA, Page 276, lines 17-21. The essence of DA is that the television program guide that would allow a user of the television to pick and choose programs broadcast over a television network can also be available on internet pages and allow multimedia stations operating as the equivalent of a television or radio to adopt this same feature. Therefore, it follows that there is no motivation or suggestion to combine the references of DA and Schneier to arrive at an electronic mail inputting means for inputting an electronic mail; an encrypting means for encrypting predetermined information; an adding means for adding, as certification information, information encrypted by said encrypting means said certification information decrypted by said decrypting means, whether a sender of said electronic mail is an authentic user; and a storing means for storing, if said sender of said electronic mail has been certified by said certifying means to be an authentic user, said control command extracted by said extracting means. Therefore, it is respectfully submitted that claim 8 is patentable over DA in view Schneier.


Claim 9

As for claim 9, the Examiner states that because the applicant recites methods of implementing claim 8, the same limitations apply, and it is therefore rejected. It is respectfully submitted that method of claim 9 is patentable for the same reasons as the apparatus of claim 8 as explained above.

In view of the above, it is respectfully submitted that the application is now in condition for allowance. The Examiner's reconsideration and further examination are respectfully requested.

Respectfully submitted,
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